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Shrjie Tzeng

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03/28/2006

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EXAMINER

MOORE JR, MICHAEL J

ART UNIT

PAPER NUMBER

2616

DATE MAILED: 03/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/943,238

Applicant(s)

TZENG, SHRJIE

Examiner

Michael J. Moore, Jr.

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10 and 16-23 is/are allowed.
- 6) ☒ Claim(s) 11, 12 and 14 is/are rejected.
- 7) ☒ Claim(s) 13 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
- Paper No(s)/Mail Date \_\_\_\_\_.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims **11, 12, and 14** are rejected under 35 U.S.C. 102(e) as being anticipated by Wong et al. (U.S. 6,754,216) ("Wong"). *Wong* teaches all of the limitations of the specified claims with the reasoning that follows.

Regarding claim **11**, "designating a first plurality of ports of a first switch by a first numbering scheme" is anticipated by ports 0-8 (first numbering scheme) of fabric access devices (FAD) 414, 416, and 418 of Figure 4 that are part of the switch fabric 300 (first switch) of Figure 3.

"Designating a second plurality of ports of a second switch by a second numbering scheme" is anticipated by ports 0-8 (second numbering scheme) of port interface device (OCTOPID) groups 440, 442, 444, 446, 448, 450, and 452 of Figure 4 that are part of the Ethernet switch system 350 (second switch) of Figure 3.

"Coupling a first link port of the first plurality of ports to a second link port of the second plurality of ports" is anticipated by ports 0-8 of fabric access devices (FAD) 414, 416, and 418 that are coupled to ports 0-8 of port interface device (OCTOPID) groups

440, 442, 444, 446, 448, 450, and 452 via TAP multiplexers 426, 428, 430, 432, 434, and 436 as shown in Figure 4.

“Configuring the first switch to generate a first rate control message at the first switch and relay the first rate control message to a first local communications channel of the first switch” is anticipated by SWIP controller 305 of switch fabric 300 (first switch) of Figure 3 that monitors the congestion of the port interface devices and transmits a congestion rating (first rate control message) to the port interface devices as spoken of on column 16, lines 37-50.

Lastly, “configuring the first switch to perform a rate control function related to the second switch based on the first rate control message” is anticipated by SWIP controller 800 of Figure 8 containing congestion control module 840 that controls transmissions (rate control function) in light of detected congestion conditions (first rate control message) as spoken of on column 15, lines 18-34.

Regarding claim 12, “the first rate control message including data relating to the first link port being congested” is anticipated by the congestion rating (first rate control message) transmitted by a SWIP controller the congestion status of port interface devices (PIDs) as spoken of on column 16, lines 46-55.

Lastly, “configuring the first switch to perform a rate control function including preventing data packets from being sent to the second switch” is anticipated by SWIP controller 800 of Figure 8 containing congestion control module 840 that controls transmissions (rate control function) in light of detected congestion conditions (first rate control message) as spoken of on column 15, lines 18-34, as well as column 16, lines

50-55 that states that each PID uses the congestion rating to determine whether to transmit or discard data (prevent packets from being sent) intended for a recipient OctaPID.

Regarding claim **14**, “configuring the first group of ports to drop all packets destined for the second switch when the first rate control message includes data relating to the first link port being congested” is anticipated by lines 50-55 that states that each PID uses the congestion rating to determine whether to transmit or discard data (prevent packets from being sent) intended for a recipient OctaPID.

***Allowable Subject Matter***

3. Claims **1-10 and 16-23** are allowable over the prior art of record.
4. Claims **13 and 15** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
5. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims **1-10 and 16-23**, these claims are allowable for the reasons indicated in the previous Office Action.

Regarding claim **13**, *Wong* teaches the method of claim **11**. *Wong* fails to teach the generating of a HOL status notification and performing a rate control function relating to a HOL status notification relating to all of the second group of ports based on the first rate control message.

Regarding claim **15**, this claim is further limiting to claim **13** and is thus also allowable over the prior art of record.

***Response to Arguments***

6. Applicant's arguments filed 1/13/2006 have been fully considered but they are not persuasive.

Regarding claim **11**, Applicant argues that the FAD buffers 414, 416, and 418 of *Wong* do not equate to the "first plurality of ports" of this claim. Applicant further argues that a port of a switch is an interface on a switch to which other devices can be connected while a buffer is a temporary storage area, and follows that one skilled in the art would not equate the FAD buffers of *Wong* with the first plurality of ports because they perform different functions.

While it is agreed that a buffer is a temporary storage area, it is held that a buffer can be broadly interpreted to be an interface on a switch to which other devices can be connected. As shown in Figure 4 of *Wong*, the buffers 0-8 of each of FAD devices 414, 416, and 418, are coupled to Tap Mux devices 426-438 and communicate with these devices. These FAD devices are within a switch fabric. Therefore, giving a broadest reasonable interpretation of the claim language, it is held that the FAD devices of *Wong* function as buffers as well as a "port" providing connection to other devices.

Applicant also argues that the Office Action alleges that the "local communications channel" of claim **11** is equivalent to the switch processor of *Wong*.

However, referring to the previous Office Action, this contention is not understood.

Referring to the previous Office Action, SWIP controller 305 within switch fabric 300 (first switch) of Figure 3 monitors the congestion of the port interface devices and transmits a congestion rating (first rate control message) to the port interface devices as spoken of on column 16, lines 37-50.

As shown in Figure 4, SWIP controller 404 is coupled to port interface devices 440-452 via multiple communication channels. These communication channels between SWIP controller 404 and port interface devices 440-452 are used for communicating the above congestion rating.

As noted by Applicant, the SWIP controller communicates with the memory to obtain information and communicate with the logic unit to control the transmission and reception of data packets.

It is therefore held that the monitoring of PID congestion of port interface devices by the SWIP controller and resulting transmission of a congestion rating to the port interface devices anticipates "configuring the first switch to generate a first rate control message at the first switch and relay the first rate control message to a first local communication channel of the first switch".

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

Art Unit: 2616

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Moore, Jr. whose telephone number is (571) 272-3168. The examiner can normally be reached on Monday-Friday (8:00am - 4:30pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mjm MM

Michael J. Moore, Jr.  
Examiner  
Art Unit 2616

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